Remarks/Arguments:

Claims 1, 8, 9, 11, 15, 17, 20, 21 and 23 have been amended. No new matter is introduced herein. Claims 10, 14, 16 and 22 have been cancelled. Claims 1-6, 8, 9, 11-13, 15, 17-21 and 23 are pending.

Claims 1, 8, 11, 20 and 23 have been amended to include the features of claim 16. Consequently, no new issues are raised by this amendment. Claims 10, 14, 16 and 22 have been cancelled. No new matter is introduced herein. Basis for the amendment to Claims 1, 8, 11, 20 and 23 have been amended, in particular, to recite that the recording mark has a value which changes for every frame. Claims 15 and 17 have been amended to depend from claim 11. Claims 9 and 21 have been amended to recite a computer-readable recording medium of recording a program. Basis for the amendment to claims 1, 8, 11, 20 and 23, can also be found, for example on page 20, line 16 - page 21, line 5 and Fig. 5 of the subject specification.

Claims 9 and 21 have been rejected under 35 U.S.C. 101 as being directed to non-statutory subject matter. Claims 9 and 21 have been amended to recite a computer-readable recording medium of recording a "program, which program causes a computer to act." Accordingly, Applicants respectfully request that the rejection of claims 9 and 21 under 35 U.S.C. 101 be withdrawn.

Claims 1-6 and 8-10 have been rejected under 35 U.S.C. § 102(e) as being anticipated by David et al. (U.S. 2002/0131764). Claims 11-23 have been rejected under 35 U.S.C.§ 103(a) as being unpatentable over David et al. in view of Murata et al. (U.S. 7,260,306). It is respectfully submitted, however, that these claims are patentable over the cited art for the reasons set forth below.

Applicants note that claims 1, 8, 11, 20 and 23 have been amended to include the features of claim 16. Because claim 16 was rejected based on David et al. and Murata et al., Applicants address the rejection of claims 1, 8, 11, 20 and 23 with respect to David et al. and Murata et al.

Claim 1, as amended, includes features neither disclosed nor suggested by the cited art, namely:

> ... AutoREC signal generation means of generating an AutoREC signal, which has recording marks to be multiplexed with frames where said recording is continued, in conjunction with the start and/or the stop of said recording based on respective indications; ...
>
> ... said recording mark has a value which changes for every frame. (emphasis added)

Claims 8, 11, 20 and 23 include similar recitations.

David et al. disclose, in Fig. 1, camcorder 500 that records video/audio material and metadata on recording medium 126. The metadata is linked to the material by a unique material identifier (UMID) and material reference numbers (MURNs). MURNs are generated as the material is recorded on the tape and identify each clip on the tape to frame accuracy. (Paragraphs [0090-0093]). In Fig. 30, camcorder 460 uses a record start and stop button 471 to generate IN and OUT time codes that are multiplexed onto a tape (paragraphs [0261-0262]). David et al. discloses, in Fig. 31, that a generated MURN is passed with video and audio streams and "good shot markers and the like" to multiplexer 466 for recording on a tape (paragraphs [0287-0293]). In addition, in Fig. 33, David et al. discloses a video camera including three input sensors 56, 58, 60. Third sensor 60 provides an indication of a "good shot marker" which is manually set by the operator of the camera when a good image or shot has been recorded by the camera (paragraph [0298]).

David et al. do not disclose or suggest Applicants' claimed features of "said recording mark has a value which changes for every frame" (emphasis added). In paragraph 18 of the Office Action, the Examiner asserts that David et al. teach that a recording mark has a value which changes for every frame, based on paragraphs [0057], [0116], [0188], [0204-0205] and Fig. 11. Applicants have reviewed these paragraphs and Fig. 11 and can find no teaching of a recording mark having a value which changes for every frame. Instead, paragraphs [0116], [0188] and [0204-0205] and Fig. 11 respectively relate to discussion of UMIDs, MURNs, a "take table", a "good shot" marker and IN and OUT time codes. At paragraph [0057], David et al. only teach that a control processor may "change the header information between successive packets recorded repeatedly on to the linear recording medium which have different metadata objects." Thus, David et al. are silent regarding recording marks that are multiplexed with frames where the recording is continued and where the recording mark has a value which changes for every frame, as required by claims 1, 8, 11, 20 and 23. Thus, David et al. do not include all of the features of claims 1, 8, 11, 20 and 23.

Murata et al. disclose, in Fig. 10, operations of an editing method for performing role editing work, where all of the flow operations shown in Fig. 10 are "executed by manually operating the control apparatus 54 while an editor observes the images reproduced on the monitor 52" (column 2, lines 14-21). Murata et al. do not make up for the deficiencies of David et al. because they do not disclose or suggest recording marks that are multiplexed with frames where the recording is continued and where the recording mark has a value which changes for every frame, as required by claims 1, 8, 11, 20 and 23. Thus, Murata et al. do not include all of the features of claims 1, 8, 11, 20 and 23.

Applicants' invention, as recited by claims 1, 8, 11, 20 and 23 includes advantages neither disclosed nor suggested by the cited art. As shown in Fig. 5 of the subject invention, an exemplary autoREC signal is represented by two bits (bit1, bit0). The video signal may be cut, for example, into three cuts 1-3 (51-53) based on start marks 54, recording marks 55 and stop marks 56. As shown in Fig. 5, recording mark 55 includes alternately inverting codes "10" and "01" for bit1, bit0. (See also the discussion in the subject specification at page 20, line 16 - page 21, line 5). As described in the subject specification at page 21, lines 14-22:

> To sum up, a code whose value changes for every frame may be preferably used as the recording mark. Then, even when the reproduction of the tape stops by the user's operation in the middle of performing the automatic cut division recording of the video material once recorded on the tape or the like, the risk that the automatic recording cannot be stopped since the stop mark cannot permanently be detected is reduced. That is, due to the stop of the change of the recording mark, it becomes possible to automatically stop the recording. (emphasis added)

Accordingly, the alternating recording mark (i.e., the alternating "10" and "01" of bit1, bit0 for recording mark 55) is detectable when a tape reproduction is stopped, even when stop mark 56 is not detected. Because the alternating recording mark can be detected in each frame, an automatic recording may still be stopped in the middle of performing an automatic cut division recording (for example, cut 151). These features are neither disclosed nor suggested by the cited art. Accordingly, allowance of claims 1, 8, 11, 20 and 23 is respectfully requested.

Claims 2-6, 9, 12, 13, 15, 17-19 and 21 include all of the features of respective claims 1, 8, 11 and 20 from which they depend. Accordingly, these claims are also patentable over the cited art.

In view of the amendments and arguments set forth above, the above-identified application is in condition for allowance which action is respectfully requested.

Respectfully submitted,

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